

PAP
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transformed with the above-described reaction solution. Further, fragments obtained by removing the antibody variable region part by a similar technique as described above (VH or VL (see Fig. 2 or Fig. 33)) from the Sfi I-digested ecdysone analogue-inducible type expression plasmid (pIND-g4H or pIND-4GL) prepared in 3-4 and the corresponding Sfi I-digested anti-F.X antibody-derived Sfi I-VH or Sfi I-VL fragment were incorporated by a similar method.

In each of the ampicillin-resistant transformants thus obtained, insertion of the fragment of interest was confirmed by colony PCR method using primers that sandwich the inserted fragment. First, for the anti-F.IXa antibody chimeric H chain or L chain expression vector, a 21-mer CMVF primer (SEQ ID NO: 10) which anneals to the CMV forward priming site upstream of the insertion site, and an 18-mer BGHR primer (SEQ ID NO: 11) which anneals to the BGH reverse priming site downstream of the insertion site were synthesized (Sigma Genosys). For the anti-F.X antibody chimeric H chain or L chain expression vector, a 24-mer EcdF primer (SEQ ID NO: 12) which anneals to the upstream of the insertion site and an 18-mer BGHR primer (SEQ ID NO: 11) which anneals to the BGH reverse priming site downstream of the insertion site were synthesized (Sigma Genosys). For colony PCR, a reaction solution (20 μ L) (0.2 μ L primer (10 μ M), KOD dash buffer (TOYOBO), 0.2 mM dNTPs, and 0.75 units DNA polymerase KOD dash) (TOYOBO)) was prepared. To this reaction solution, cells of the transformant strain were added in appropriate amounts and PCR was performed. PCR was performed using a thermal cycler GeneAmp PCR system 9700 (Parkin Elmer) under conditions of 1 minute heating at 96°C followed by 30 cycles of reaction (96°C, 10 sec, 55°C, 10 sec, and 72°C, 30 sec in one cycle). After PCR, the reaction solution was subjected to 1% agarose gel electrophoresis, and clones from which amplification fragments of the desired size were obtained, were selected. The PCR product was treated with an ExoSAP-IT (Amersham Biosciences) to inactivate excess primers and dNTPs according to the attached instruction manual. Nucleotide sequences of the DNA fragments were determined using a BigDye Terminator Cycle Sequencing Kit (Applied Biosystems) on a DNA sequencer ABI PRISM 3100 Genetic Analyzer (Applied Biosystems), according to the method described in the attached instruction manual. Sequence groups determined by the present method were analyzed with an analytical software, GENETYX-SV/RC Version 6.1 (Genetyx). For VH, clones of interest having no insertion, deletion, or mutation were selected. For VL, different from the P3U1-derived pseudo VL gene used in hybridomas, clones of interest having no insertion, deletion, or mutation were selected.

From the clones of interest, the respective plasmid DNAs were isolated by using a QIAprep Spin Miniprep Kit (QIAGEN), and then dissolved in sterile water (100 μ L). Anti-F.IXa antibody chimeric H chain expression vector, anti-F.IXa antibody chimeric L chain expression vector, anti-F.X antibody chimeric H chain expression vector, and anti-F.X antibody